

## **IN THE CLAIMS:**

### **Amendments to the Claims**

Please cancel claims 1-6, 9 and 10 without prejudice or disclaimer of the subject matter thereof.

### **Listing of Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-6 (canceled)

7. (previously presented) An electron microscope having an electron beam optical system provided with an electron source and a lens for focusing an electron beam, an optical system controller for controlling the electron beam optical system, a specimen stage on which a specimen is to be placed, an electron detector for detecting electrons emitted from the specimen by irradiating the specimen with the electron beam, an X-ray detector for detecting X rays radiated from the specimen, and a processor for processing signals from both the detectors, and performing image formation and elemental analysis of the specimens, said electron microscope comprising:

means for detecting the count-number of X rays per unit time by detecting the X rays with the X-ray detector; and

feedback-controlling a current quantity of the electron beam on the basis of the count-number of X rays per unit time.

8. (previously presented) An electron microscope according to claim 7, wherein the current quantity of the electron beam is feedback-controlled such that the count-number of X rays from the specimens falls within a range of 1000 to 2000 counts per second.

Claims 9 and 10 (canceled)